

AUG-8-2005 16:02 FROM: KIRKPATRICK & LOCKER 412 355 3707

TO: 915712738300

P: 2/23

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AUG 08 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Reexamination of	Examiner: Yonel Beaulieu
U.S. Patent No. 6,181,990	Art Unit:
Control No.: 90/006,742	Title: AIRCRAFT FLIGHT DATA
Filing Date: August 12, 2003	ACQUISITION AND TRANSMISSION
Inventors: Grabowsky et al.	SYSTEM

LETTER TRANSMITTING DOCUMENTS REGARDING PATENTEE'S
RESPONSE TO OFFICE ACTION

August 8, 2005

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

On August 8, 2005, the undersigned spoke with Examiner Joanne Silverman concerning the Office Action in the above *Ex Parte* Reexamination mailed on June 3, 2005 (the Office Action). Examiner Silverman indicated that the Office has not received a response to the Office Action from the Patentee. In fact, the Patentee mailed a response to the Office Action by Express Mail, Post Office to Addressee on July 26, 2005. The Patentee encloses herewith (a) a copy of the response as mailed on July 26, 2005; (b) a copy of an Express Mail Certificate

Certificate of Transmission

I hereby certify that this Letter Transmitting Documents Regarding Patentee's Response to Office Action with attachments is being facsimile transmitted to the U.S. Patent and Trademark Office (Fax No. (571)273-8300) on August 8, 2005.

Typed or printed name of person signing this certificate

Signature Patricia A. Meek
Patricia A. Meek

PAGE 2/23 * RCVD AT 08/20/05 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EFAXF-6/37 * DNS:2738300 * CSD:4123553707 * DURATION (mm:ss):05:18

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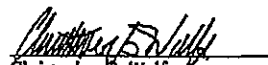
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indicating that the response was mailed on July 26, 2005 under "Express Mail" label number EU150835102US; and (c) "Express Mail" label number EU150835102US showing a "date in" of July 26, 2005.

If the Examiner is of the opinion that the enclosed response is not entitled to be entered with a filing date of July 26, 2005, the Examiner is respectfully requested to contact the undersigned representative.

Respectfully submitted,


Christopher G. Wolfe
Registration No. 56,264

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- 2 -

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing
LETTER TRANSMITTING DOCUMENTS REGARDING PATENTEE'S RESPONSE TO
OFFICE ACTION was served by First Class Mail, postage prepaid, upon:

Christopher F. Regan
Attorney for Harris Corporation, Third Party Requestor
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.
255 S. Orange Ave., Suite 1401
P.O. Box 3791
Orlando, FL 32802.


Christopher G. Wolfe

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PAGE 4/23 * RCVD AT 8/8/2005 4:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EF:RF 4037 * DNS:2738300 * CSID:412 355 3707 * DURATION (mm-ss):05-18

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of **RECEIVED** Examiner: Yonel Beaulieu
 U.S. Patent No. 6,181,990 **CENTRAL FAX CENTER** Art Unit:
 Control No.: 90/006,742 **AUG 08 2005** Title: AIRCRAFT FLIGHT DATA
 Filing Date: August 12, 2003 **ACQUISITION AND TRANSMISSION**
 Inventors: Grabowsky et al. **SYSTEM**

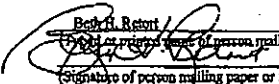
EXPRESS MAIL CERTIFICATE

"Express Mail" label number EU150835102USDate of Deposit July 26, 2005

I hereby certify that the following attached paper or fee

AMENDMENT TRANSMITTAL
AMENDMENT AND RESPONSE TO OFFICE ACTION IN EX PARTE REEXAMINATION

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, P.O. Box: 1450, Alexandria, VA 22313-1450.

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 (Signature of person mailing paper or fee)

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Attorney's Docket No. 98118

AUG 08 2005

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of

Examiner: Yonel Beaulieu

U.S. Patent No. 6,181,990

Art Unit:

Control No.: 90/006,742

Title: AIRCRAFT FLIGHT DATA

Filing Date: August 12, 2003

ACQUISITION AND TRANSMISSION

Inventors: Grabowsky et al.

SYSTEM

Commissioner for Patents
P.O. Box: 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

1. Transmitted herewith is an amendment for this application.

STATUS

2. Applicant is

☐ A statement that this filing is by a small entity is hereby asserted in accordance with the rule change effective September 8, 2000, 65 Fed. Reg. 54603.

☒ other than a small entity.

CERTIFICATE OF MAILING/TRANSMISSION BY CFR 1.8a)

I hereby certify that this correspondence is, on the date shown below, being:

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☐ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box: 1450, Alexandria, VA 22313-1450

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Signature

Date

(Type or print name of person certifying)

PI-1409715 v1 0215786-0124

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EXTENSION OF TERM

NOTE: "Extension of Time in Patent Cases (Supplement Amendments) - If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1081 O.G. 34-35).

NOTE: See 37 CFR 1.645 for extensions of time in interference proceedings, and 37 CFR 1.550(e) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

a) (complete (a) or (b), as applicable)

(a) ☐ Applicant petitions for an extension of time under 38 CFR 1.138 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 120.00	\$ 60.00
<input type="checkbox"/> two months	\$ 450.00	\$225.00
<input type="checkbox"/> three months	\$1,020.00	\$510.00
<input type="checkbox"/> four months	\$1,590.00	\$795.00

Fee \$

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$

OR

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

(Amendment Transmitted [9-19]-page 2 of 4

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FEE FOR CLAIMS

4. The fee for claims (37 CFR 1.16(b)-(d)) has been calculated as shown below.

(Col. 1)	(Col. 2)	(Col. 3)	SMALL ENTITY		OTHER THAN A SMALL ENTITY	
CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NO PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDIT. FEE	OR	ADDIT. FEE
TOTAL 5	MINUS 33**	=0	X25=	\$0.		X50= \$0.
INDEP. 6*	MINUS 8**	=0	X100=	\$0		X200= \$0.
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM			+180=	\$		+360= \$
			TOTAL ADDIT. FEE	\$0.	OR	TOTAL ADDIT. FEE \$0.

* If the entry in Col. 1 is less than entry in Col. 2, write "0" in Col. 3.

** If the "Highest No. Previously Paid for" IN THIS SPACE is less than 20, enter "20."

*** If the "Highest No. Previously Paid for" IN THIS SPACE is less than 3, enter "3."
The "Highest No. Previously Paid for" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.**WARNING** "After final rejection or action (§ 1.113) amendments may be made cancelling claims or complying with any requirement of form which has been made." 37 CFR § 1.116(a) (emphasis added).

Complete (c) or (d), as applicable)

(c) ☒ No additional fee for claims is required.

OR

(d) ☐ Total additional fee for claims required \$ _____**FEE PAYMENT**5. ☐ Attached is a check in the sum of \$ _____☐ Charge Account No. _____ the sum of \$ _____

A duplicate of this transmittal is attached.

(Amendment Transmittal [9-19]-page 3 of 4)

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FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1988, (1085 O.G. 31-33).

6. ☒ If any additional extension and/or fee is required, charge Account No.

7. 11-1110

AND/OR

☒ If any additional fee for claims is required, charge Account No.

11-1110

SIGNATURE OF ATTORNEY

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(Amendment Transmitted (9-18)-page 4 of 4

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of	Examiner: Yonel Beaulieu
U.S. Patent No. 6,181,990	Art Unit:
Control No.: 90/006,742	Title: AIRCRAFT FLIGHT DATA
Filing Date: August 12, 2003	ACQUISITION AND TRANSMISSION
Inventors: Grabowsky et al.	SYSTEM

AMENDMENT AND RESPONSE TO OFFICE ACTION IN EX PARTE REEXAMINATION

July 26, 2005

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is submitted in the above-referenced reexamination of U.S. Patent No. 6,181,990 (hereinafter "the '990 patent"). In response to the Office Action mailed on June 3, 2005, the Patent Owner responds as follows, where:

A section entitled Amendments to the Claims begins on page 2; and

A section entitled Remarks begins on page 5.

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Attorney Docket No. 98118

AMENDMENTS TO THE CLAIMS

The Patent Owner respectfully requests entry of the following amendments to the claims:

1. (amended): An aircraft data transmission system, the aircraft having a data acquisition unit, and the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least one sensor on the aircraft, comprising:

a communications unit located in the aircraft and in communication with the data acquisition unit;

a cellular infrastructure in communication with said communications unit after the aircraft has landed, wherein the cellular infrastructure communicates said flight data, and wherein the communication is initiated automatically upon landing of the aircraft; [and]

a data reception unit in communication with said cellular infrastructure; and wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

15. (amended): An aircraft data transmission system, the aircraft having a data acquisition unit, the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least one sensor on the aircraft, comprising:

means for transmitting said flight data from the data acquisition unit, via a cellular infrastructure after the aircraft has landed, wherein transmission of the data is initiated automatically upon landing of the aircraft; [and]

means for receiving said flight data from said cellular infrastructure; and

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wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft

18. (amended): A method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a data acquisition unit;

transmitting said flight data via a cellular communications infrastructure after the aircraft has landed, wherein the cellular communications infrastructure is accessed automatically upon landing of the aircraft; [and]

receiving said transmitted flight data; and

wherein said flight data is gathered in-flight by at least one sensor on the aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

19. (amended): A computer-implemented method of transmitting aircraft flight data from an aircraft, comprising:

receiving flight data from a digital flight data acquisition unit, wherein said flight data is gathered in-flight by at least one sensor on the aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure after the aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft.

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Attorney Docket No. 98118

33. (amended): A computer readable medium having stored thereon instructions which when executed by a processor, cause the processor to perform the steps of:

receiving flight data from a digital flight data acquisition unit in an aircraft, wherein said flight data is gathered in-flight by at least one sensor on the aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure when said aircraft has landed, wherein the cellular infrastructure is accessed automatically upon landing of the aircraft.

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Attorney Docket No. 98118

REMARKS

The '990 patent includes claims 1-33. In the Office Action, claims 5, 8-14 and 25-32 are confirmed. Claims 1-4, 6, 7, 15-24 and 33 are rejected. Specifically, claims 1, 4, 6, 7, 15-20 and 33 are rejected under 25 U.S.C. section 102(b) as being anticipated by U.S. Patent No. 5,351,194 to Ross et al. (Ross). Claims 1-4, 6, 7, 15-24 and 33 are rejected under 35 U.S.C. section 102(e) as being anticipated by U.S. Patent No. 6,047,165 to Wright, et al. (Wright). Claims 2, 3, 21 and 22 are rejected under 35 U.S.C. section 103(a) as being unpatentable over Ross in further view of U.S. Patent No. 5,943,399 to Bannister, et al. (Bannister). Claims 23 and 24 are rejected under 35 U.S.C. section 103(a) as being unpatentable over Ross in further view of U.S. Patent No. 5,463,656 to Polivka, et al. (Polivka). The Patent Owner traverses all of the claim rejections.

Statement under 37 CFR 1.560(b)

The Patent Owner and the undersigned would like to thank the Examiner for the courtesies extended during the interview of July 6, 2005 (the interview). Pursuant to 37 CFR 1.560(b), the Patent Owner provides below, "a complete written statement of the reasons presented at the interview as warranting favorable action." See 37 CFR 1.560(b).

(1) The Patent Owner argued that claims 1, 15, 18, 19 and 33 are patentable over Ross because Ross fails to teach communicating "flight data . . . wherein the communication is initiated automatically upon landing the aircraft." To the contrary, Ross only teaches sending a flight plan cancellation upon the landing of an aircraft, not "flight data" as recited in claims 1, 15, 18, 19 and 33.

(2) The Patent Owner also argued that Ross does not teach "a data storage medium having stored thereon flight data" as recited in claims 1 and 15. In fact, Ross does not teach any kind of storage of "flight data."

(3) The Patent Owner also argued that claims 1, 15, 18, 19 and 33, as amended, are patentable over Wright because Wright fails to teach any "cellular infrastructure." Instead, Wright teaches transmitting data in unlicensed frequency bands to a series of "airport-resident ODL wireless router segments 201" located at various locations in an airport. The Patent Owner also noted that, in addition, Wright teaches away from transmitting in licensed frequencies, such

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as those used by cellular infrastructures. See Wright at col. 14, li. 32-40.

Claim Amendments

The Patent Owner has amended the claims as follows:

(1) Independent claim 1 has been amended to recite that the, "flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft," and is "gathered in-flight by at least one sensor on the aircraft." Claims 15, 18, 19 and 33 have been similarly amended.

(2) Independent claim 1 has been amended to recite that, "the cellular infrastructure communicates said flight data." Claim 15 has been similarly amended.

(3) Independent claim 1 has been amended to recite that the aircraft includes, "a data storage medium having stored thereon flight data." Claim 15 has been similarly amended.

The Patent Owner submits that support for all of the claim amendments may be found throughout the specification, for example, at col. 3, li. 7-20.

The Ross Reference

The Ross reference teaches, "an apparatus and method of canceling a flight plan of an aircraft to facilitate release of an IFR [Instrument Flight Rules] airspace to other aircraft and for communicating the location of a downed aircraft during emergencies." See Ross at Abstract. In the disclosure of Ross, a controller 10 includes three switches, as illustrated in Figure 1 below:

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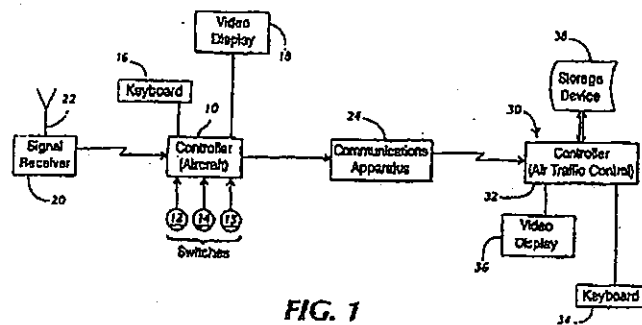


FIG. 1

A switch 14 may be activated manually by the pilot, or automatically when the aircraft lands. See Ross at col. 4, ll. 25-30. When switch 14 is activated, the controller 10 communicates with a flight control center 30 to cancel an IFR flight plan for the aircraft, allowing airspace assigned to the aircraft to be released. See Ross at col. 5, ll. 48-66. The Patent Owner notes that canceling an IFR flight plan typically involves nothing more than making a brief voice telephone call to the air traffic controller, not any sizable transmission of data.

An additional switch 15 of Ross's controller 10 may be activated in flight by the pilot of the aircraft in the event of an emergency. When switch 15 is activated, the controller 10 communicates in flight the altitude, airspeed and direction of the aircraft to the flight control center 30. See Ross at col. 6, ll. 13-22. Another switch 12 of the controller 10 may be activated by a high-impact force, such as a crash. When switch 12 is activated, the controller may transmit the aircraft's current location to the flight control center 30.

The Wright Reference

The Wright reference teaches, "a flight information communication system [with] a plurality of RF direct sequence spread spectrum ground data links that link respective aircraft-resident subsystems, in each of which a copy of its flight performance data is stored, with airport-located subsystems." See Wright at Abstract.

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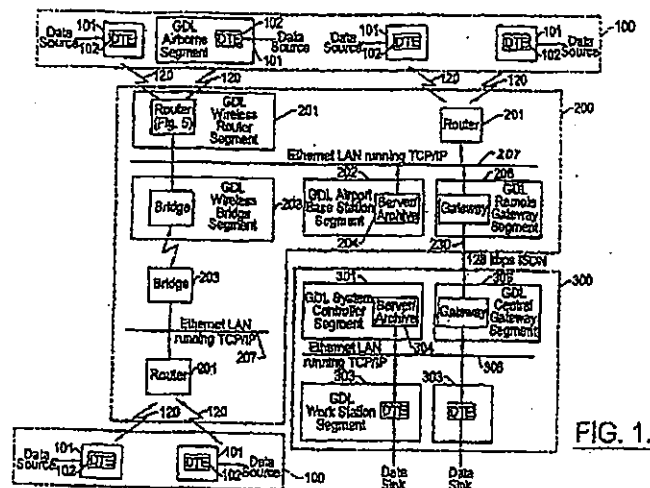
PAGE 16/23 * RCVD AT 8/8/2005 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EF-XRF-5037 * DNS:2738300 * CSID:4123553707 * DURATION (mm:ss):05:18

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Attorney Docket No. 98118



As shown in Figure 1 above, Wright's "airport-located subsystem" or "airport-resident ground system 200" includes a complex infrastructure that has a plurality of "airport-resident GDL wireless router segments 201." See Wright at col. 7, ll. 24-27. The "airport-resident ground system 200" is in communication with an "aircraft-installed ground data link (GDL) subsystem 100" through the "wireless router segments 201" over a series of "communication links 120." Wright teaches that "communication links 120" are, "spread spectrum radio frequency (RF) links having a carrier frequency lying in an unlicensed portion of the electromagnetic spectrum." See Wright at col. 14, ll. 32-40. Interference between the "communication links 120" may be minimized by employing "different transmit frequencies and a different channel spacing" in a way that is "akin to that employed in cellular telephone networks." See Wright at col. 15, ll. 1-16.

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Section 102(b) Rejections Over Ross

The Patent Owner submits that the rejections over Ross should be withdrawn because Ross fails to disclose each and every element recited in claims 1, 15, 18, 19 and 33. See MPEP § 2131 (stating that a claim is anticipated only if each and every element as set forth in the claim is disclosed in a single prior art reference).

For example, the Patent Owner submits that Ross fails to teach, among other things, communicating, "flight data . . . wherein the communication is initiated automatically upon landing of the aircraft," as recited in claim 1. Ross teaches canceling a flight plan on landing. See Ross at col. 5, ll. 48-66. Canceling a flight plan does not, however, involve communicating, "flight data includ[ing] time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft," as recited in claim 1. Further, canceling a flight plan does not involve communicating "flight data gathered in-flight by at least one sensor on the aircraft," as recited in claim 1. Instead, canceling a flight data plan involves placing a brief telephone call and does not involve the transmission of flight data which, in various embodiments, includes the transmission of a large amount of data.

Ross does teach communicating, "altitude, air speed, and direction of the aircraft" from the aircraft to the flight control center 30 of Ross. See Ross at col. 6, ll. 13-22. This communication, however, takes place when the pilot manually activates switch 15 of Ross in flight, not, "automatically upon landing of the aircraft," as recited in claim 1.

Accordingly, the Patent Owner submits that claim 1, as well as claims 2-7 which depend directly or indirectly from claim 1, are patentable over Ross. Independent claims 15, 18, 19 and 33 have been amended to contain limitations similar to those limitations of claim 1 discussed above, and therefore claims 15, 18, 19 and 33, as well as claims 16-17 and 20-24 which depend directly or indirectly from claims 15 and 19, respectively, are patentable over Ross.

In addition to the distinctions over Ross discussed above, the Patent Owner submits that claims 1 and 15 include at least one other element that Ross fails to teach. For example, claims 1 and 15 recite, "the aircraft including a data storage medium having stored thereon flight data." Ross is silent as to storing any "flight data" on the aircraft. Accordingly, claims 1 and 15, as well as claims 2-7 and 16-17, which depend directly or indirectly from claims 1-15 are patentable over

- 9 -

PAGE 18/23 * RCVD AT 8/8/2005 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXXF-607 * DNS:2738300 * CSID:412 355 3787 * DURATION (mm:ss):05:18

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TO:915712738300

P:19/23

Attorney Docket No. 98118

Ross for this additional reason as well as those discussed above with respect to claims 1, 15, 18, 19, and 33.

Section 102(e) Rejections over Wright

The Patent Owner submits that the rejections over Wright should be withdrawn because Wright fails to disclose each and every element recited in claim 1. *See* MPEP § 2131. For example, the Patent Owner submits that Wright fails to teach, among other things, "a cellular infrastructure" that "communicates said flight data," as recited in claim 1.

Wright teaches an "airport-resident ground system 200" having a plurality of "wireless router segments 201." *See* Wright at col. 7, ll. 24-38. The "wireless router segments 201" are in communication with aircraft-based systems over "wireless communication links 120." *See* Wright at col. 6, ll. 55-62. The "airport-resident ground system 200" of Wright is clearly not a "cellular infrastructure" as recited in claim 1. For example, Wright teaches that its "wireless communication links 120" utilize unlicensed carrier frequencies. *See, e.g.,* Wright at col. 14, ll. 32-40. It is well known in the art of cellular communication that a cellular infrastructure, such as a mobile telephone voice/data network, uses carrier frequencies in the licensed frequency range. Accordingly, the "airport-resident ground system 200" of Wright cannot be a "cellular infrastructure" as recited in claim 1.

Not only does Wright fail to teach the use of a cellular infrastructure, but it, in fact, teaches away from it. For example, Wright cites its use of unlicensed (and therefore non-cellular) carrier frequencies as a "particularly useful characteristic" while noting that other options, including those operating in the licensed frequency spectrum (such as, for example, the licensed frequency bands used by a cellular infrastructure), "restrict usage geographically or require the user to obtain a license in order to operate the system." *See* Wright at col. 14, ll. 32-40. This demonstrates that claim 1 is not only novel over Wright, but is also non-obvious. *See* MPEP § 2144.05 (A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention).

The Patent Owner notes that the "airport-resident ground system 200" of Wright does have "overlapping [unlicensed band] ground link communication coverage, as indicated by

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PAGE 19/23 * RCVD AT 8/8/2005 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EFEXRF-837 * CNUS:2738300 * CSID:412 355 3707 * DURATION (mm:ss):05:48

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TO:915712738300

P:20/23

Attorney Docket No. 98118

overlapping circles 214 and 215," and a co-channel interference minimization scheme described as, "akin [*i.e.*, similar] to that employed in cellular telephone networks." See Wright at col. 9, ln. 58 - col. 10, ln. 3, col. 15, ll. 1-16. However, these characteristics merely show that the "airport-resident ground system 200" of Wright uses some techniques similar to those used in cellular, or mobile, communication. The "airport-resident ground system 200," though, is clearly not a "cellular infrastructure," especially in light of the differences and teaching away as discussed above.

Accordingly, the Patent Owner submits that claim 1, as well as claims 2-7 which depend directly or indirectly from claim 1, are patentable over Wright. Independent claims 15, 18, 19 and 33 include limitations similar to those of claim 1 discussed above, and therefore claims 15, 18, 19 and 33, as well as claims 16-17 and 20-24 which depend directly or indirectly from claims 15 and 19, respectively, are patentable over Wright.

The Patent Owner is not conceding the correctness of the Office's rejections with respect to any of the dependent claims discussed above and hereby reserves the right to make additional arguments as may be necessary because the dependent claims include additional features that further distinguish the claims from the cited references, taken alone or in combination. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

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PAGE 20/23 * RCVD AT 8/8/2005 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EFXXF-6437 * DNIS:2738300 * CSID:412 355 3707 * DURATION (mm:ss):05:18

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TO: 915712738300

P: 21/23

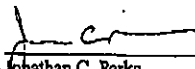
Attorney Docket No. 98118

CONCLUSION

Patent Owner respectfully asserts that claims 1-4, 6, 7, 15-24 and 33 as amended herein have been shown to be patentable over the references cited in the June 3, 2005 Office Action in the present reexamination proceeding. Accordingly, the Patent Owner respectfully requests issuance of a reexamination certificate directed to claims 1-4, 6, 7, 15-24 and 33 as herein amended as well as to previously confirmed claims 5, 8-14 and 25-32.

As required under 37 C.F.R. § 1.550(f), a copy of this response has been provided to the reexamination requester in the manner set forth in 37 C.F.R. § 1.248.

Respectfully submitted,


Jonathan C. Parks
Registration No. 40,120

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- 12 -

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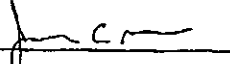
P: 22/23

Attorney Docket No. 98118

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing
AMENDMENT AND RESPONSE TO OFFICE ACTION IN REEXAMINATION was served
by First Class Mail, postage prepaid, upon:

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Jonathan C. Parks

- 13 -

PAGE 22/23 * RCVD AT 8/8/2005 5:18:17 PM [Eastern Daylight Time] * SVR:USPTO-EF70F-657 * DNS:2738300 * CSID:412 355 3707 * DURATION (mm-ss):05-18

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Client/Matter Name Teledyne

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/006,742	08/12/2003	6181990	GCSD-1360 (51298)	1151

7390 08/26/2005
 Kirkpatrick & Lockhart LLP
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EXAMINER

ART UNIT PAPER NUMBER

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination	
	90/006,742	6181990	
	Examiner	Art Unit	
	Yonel Beaulieu	3661	

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) Yonel Beaulieu (3) _____

(2) Mr. Jonathan Perks (Req. No. 40120) (4) _____

Date of Interview: 26 August 2005

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owner's representative)

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: All.

Identification of prior art discussed: Wright (USPN 6047165).

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
Mr. Jonathan was contacted on the above file with regard to patentability of the pending claims. Mr. Parks needed some time to review the file against the Wright reference and proposed to submit an amendment, supported by the file's specification, to overcome the reference. It was agreed any amendment submitted is subject to further search to determine patentability.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).

cc: Requester (if third party requester)

Examiner's signature, if required

Yonel Beaulieu
PRIMARY EXAMINER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reexamination of	Examiner: Yonel Beaulieu
U.S. Patent No. 6,181,990	Art Unit:
Control No.: 90/006,742	Title: AIRCRAFT FLIGHT DATA
Filing Date: August 12, 2003	ACQUISITION AND TRANSMISSION
Inventors: Grabowsky et al.	SYSTEM

SUPPLEMENTAL AMENDMENT AND RESPONSE TO OFFICE ACTION IN EX PARTE
REEXAMINATION AND INTERVIEW SUMMARY

September 21, 2005

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This paper is submitted in the above-referenced reexamination of U.S. Patent No. 6,181,990 (hereinafter "the '990 patent"). This paper supplements the Patent Owner's July 26, 2005 response to the Office Action mailed on June 3, 2005, where:

A section entitled Amendments to the Claims begins on page 2; and

A section entitled Remarks begins on page 9.

21.6-00 2005 09/21 WED 15:34 [TX/RX NO 5409] @002

Attorney Docket No. 98118

AMENDMENTS TO THE CLAIMS

The Patent Owner respectfully requests entry of the following amendments to the claims:

1. (amended): An aircraft data transmission system, the aircraft having a data acquisition unit, and the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least a first sensor on the aircraft, comprising:

a communications unit located in the aircraft and in communication with the data acquisition unit;

at least a second sensor configured to sense a landing of the aircraft;

a cellular infrastructure in communication with said communications unit after the aircraft has landed, wherein the cellular infrastructure communicates said flight data, and wherein the communication is initiated [automatically upon] when at least the second sensor senses the landing of the aircraft; [and]

a data reception unit in communication with said cellular infrastructure; and

wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

15. (amended): An aircraft data transmission system, the aircraft having a data acquisition unit, the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least one sensor on the aircraft, comprising:

sensing means for sensing a landing of the aircraft;

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Attorney Docket No. 98118

means for transmitting said flight data from the data acquisition unit, via a cellular infrastructure after the aircraft has landed, wherein transmission of the data is initiated [automatically upon] when the sensing means sense the landing of the aircraft; [and]
means for receiving said flight data from said cellular infrastructure; and
wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

18. (amended): A method of transmitting aircraft flight data from an aircraft, comprising:
receiving flight data from a data acquisition unit;
receiving a signal indicating a landing of the aircraft from at least a first sensor;
transmitting said flight data via a cellular communications infrastructure after the aircraft has landed, wherein the cellular communications infrastructure is accessed [automatically upon] in response to the signal [landing of the aircraft];
receiving said transmitted flight data; and
wherein said flight data is gathered in-flight by at least a second sensor on the aircraft,
and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

19. (amended): A computer-implemented method of transmitting aircraft flight data from an aircraft, comprising:

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Attorney Docket No. 98118

receiving flight data from a digital flight data acquisition unit, wherein said flight data is gathered in-flight by at least a first sensor on the aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft;

receiving a signal indicating a landing of the aircraft from at least a second sensor;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure after the aircraft has landed, wherein the cellular infrastructure is accessed in response to the signal [automatically upon landing of the aircraft].

33. (amended): A computer readable medium having stored thereon instructions which when executed by a processor, cause the processor to perform the steps of:

receiving flight data from a digital flight data acquisition unit in an aircraft, wherein said flight data is gathered in-flight by at least a first sensor on the aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft;

receiving a signal indicating a landing of the aircraft from at least a second sensor;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure when said aircraft has landed, wherein the cellular infrastructure is accessed in response to the signal [automatically upon landing of the aircraft].

34. (new): The system of claim 1, wherein the cellular infrastructure is a cellular telephone infrastructure.

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Attorney Docket No. 98118

35. (new): The system of claim 34, wherein said data reception unit is in communication with said cellular infrastructure via the Internet.

36. (new): The system of claim 34, wherein said data reception unit is in communication with said cellular infrastructure via the public switch telephone network.

37. (new): The system of claim 34, wherein said communications unit has at least one modem in communication with said cellular infrastructure and said data reception unit has at least one modem in communication with said cellular infrastructure.

38. (new): The system of claim 34, wherein said communications unit includes:
a processor;
a serial card in communication with said processor;
at least one cell channel in communication with said serial card; and
at least one antenna in communication with said cell channel.

39. (new): The system of claim 34, wherein said cellular infrastructure includes:
an antenna;
a transceiver subsystem in communication with said antenna; and
a controller in communication with said transceiver subsystem.

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Attorney Docket No. 98118

40. (new): The system of claim 34, wherein said data reception unit includes:

a router; and

a processor in communication with said router, said processor having a storage unit.

41. (new): The system of claim 15, wherein the cellular infrastructure is a cellular telephone infrastructure.

42. (new): The system of claim 41, wherein said means for transmitting data includes a processor.

43. (new): The system of claim 41, wherein said means for receiving data includes a processor.

44. (new): The method of claim 18, wherein the cellular communications infrastructure is a cellular telephone infrastructure.

45. (new): The method of claim 19, wherein the cellular infrastructure is a cellular telephone infrastructure.

46. (new): The method of claim 45 further comprising receiving said transmitted data at a flight operations center.

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Attorney Docket No. 98118

47. (new): The method of claim 46 further comprising receiving said transmitted data and transmitting said received data via the Internet before receiving said transmitted data at a flight operations center.

48. (new): The method of claim 46 further comprising receiving said transmitted data and transmitting said received data via the public-switched telephone network before receiving said transmitted data at a flight operations center.

50. (new): The method of claim 45 wherein processing said flight data includes:

compressing said flight data;
encrypting said flight data;
segmenting said flight data; and
constructing packets of data from said segmented flight data.

51. (new): The method of claim 45 wherein receiving said transmitted data includes:

acknowledging receipt of said transmitted data;
reassembling said received data;
decrypting said reassembled data;
uncompressing said decrypted data; and
storing said uncompressed data.

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21.6-00 2005 09/21 WED 15:34 [TX/RX NO 5409] @008

Attorney Docket No. 98118

52. (new): The method of claim 33, wherein the cellular infrastructure is a cellular telephone infrastructure.

- 8 -

21.6-00 2005 09/21 WED 15:34 [TX/RX NO 5409] 009

Exhibit C - Part 3
Page 225

TDY0002157

Attorney Docket No. 98118

REMARKS

The '990 patent includes claims 1-33. In the Office Action, claims 5, 8-14 and 25-32 were confirmed. Claims 1-4, 6, 7, 15-24 and 33 were rejected. The Patent Owner traverses all of the claim rejections. In its response filed on July 26, 2005 (the Response), the patent owner amended independent claims 1, 15, 18, 19 and 33. In the present response (the Supplemental Response) independent claims 1, 15, 18, 19 and 33 are further amended and new claims 34-52 are added.

In the Supplemental Response, independent claim 1 is further amended to recite, "at least a second sensor configured to sense a landing of the aircraft;" and, "wherein the communication is initiated when at least the second sensor senses the landing of the aircraft." Independent claims 15, 18, 19 and 33 are similarly amended. The Patent Owner submits that support for the amendments may be found throughout the specification as filed, for example, at col. 3, ll. 21-42 and col. 4, ll. 57-67.

The Patent Owner and the undersigned representative would like to express their gratitude to the Examiner for the courtesies extended during the telephone interview of Friday, September 16, 2005. In the interview, the Examiner and the undersigned representative agreed that neither U.S. Patent No. 5,351,194 to Ross et al. (Ross) nor U.S. Patent No. 6,047,165 to Wright, et al. (Wright) teaches or suggests, "at least a second sensor configured to sense a landing of the aircraft;" as recited in amended claim 1. The Patent Owner accordingly submits that amended claim 1 is patentable over Wright and Ross. The Patent Owner also submits that independent claims 15, 18, 19, and 33 have been amended to include limitations similar to those of claim 1 discussed above and are patentable over Ross and Wright for the same reasons discussed above.

In this Supplemental Response, the Patent Owner has also added new dependent claims 34-52, support for which may be found throughout the specification as filed. The new claims 34-52 each depend, directly or indirectly, from one of independent claims 1, 15, 18, 19 or 33 and are therefore patentable for the same reasons discussed above with respect to claims 1, 15, 18, 19 and 33.

- 9 -

21.8-00 2005 09/21 WED 15:34 (TX/RX NO 5408) 010


Attorney Docket No. 98118

CONCLUSION

Patent Owner respectfully asserts that claims 1-4, 6, 7, 15-24 and 33 as amended herein and claims 34-52 as added herein have been shown to be patentable over the references cited in the June 3, 2005 Office Action in the present reexamination proceeding. Accordingly, the Patent Owner respectfully requests issuance of a reexamination certificate directed to claims 1-4, 6, 7, 15-24 and 33-52 as herein amended as well as to previously confirmed claims 5, 8-14 and 25-32.

As required under 37 C.F.R. § 1.550(f), a copy of this supplemental response has been provided to the reexamination requester in the manner set forth in 37 C.F.R. § 1.248.

Respectfully submitted,


Jonathan C. Parks
Registration No. 40,120

Attorney for the Patent Owner

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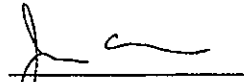
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Attorney Docket No. 98118

CERTIFICATE OF SERVICE

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REEXAMINATION was served by First Class Mail, postage prepaid, upon:

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Jonathan C. Parks

- 11 -

21.6-00 2005 09/21 WED 15:34 [TX/RX NO 5409] 012



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Date • September 21, 2005

Pages • 12

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Client/Matter Name

Client ID/Matter No. • 0215786/0124

COMMENTS: Reexamination of U. S. Patent No. 6,181,990; Control No. 90/006,742

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Ex Parte Reexamination Interview Summary	Control No.	Patent Under Reexamination	
	90/006,742	6181990	
	Examiner	Art Unit	
	Yonel Beaulieu	3661	

All participants (USPTO personnel, patent owner, patent owner's representative):

(1) Yonel Beaulieu (3) _____

(2) Jonathon Perks (Reg. No. 40120) (4) _____

Date of Interview: 9/16/05

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ patent owner 2) ☐ patent owner's representative)

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.
Any other agreement(s) are set forth below under "Description of the general nature of what was agreed to..."

Claim(s) discussed: All independent.


Identification of prior art discussed: All references of record.

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
The references of record not teaching at least a second sensor that senses the landing of the aircraft to initiate the communication with the cellular infrastructure and Examiner's amendments to correct minor informalities.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims patentable, if available, must be attached. Also, where no copy of the amendments that would render the claims patentable is available, a summary thereof must be attached.)

A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION MUST INCLUDE PATENT OWNER'S STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. (See MPEP § 2281). IF A RESPONSE TO THE LAST OFFICE ACTION HAS ALREADY BEEN FILED, THEN PATENT OWNER IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO PROVIDE THE MANDATORY STATEMENT OF THE SUBSTANCE OF THE INTERVIEW (37 CFR 1.560(b)). THE REQUIREMENT FOR PATENT OWNER'S STATEMENT CAN NOT BE WAIVED. EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c).

cc: Requester (if third party requester)


Examiner's signature, if required

U.S. Patent and Trademark Office
PTOL-474 (Rev. 04-01)

Ex Parte Reexamination Interview Summary

Paper No. 20052609



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/006,742	08/12/2003	6181990	GCSD-1360 (51298)	1151

7390 10/03/2003

Kirkpatrick & Lockhart LLP
 Henry W. Oliver Building
 535 Smithfield Street
 Pittsburgh, PA 15222

EXAMINER

ART UNIT

PAPER NUMBER

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Notice of Intent to Issue Ex Parte Reexamination Certificate	Control No.	Patent Under Reexamination	
	90/006,742	6181990	
	Examiner	Art Unit	
	Yonel Beaulieu	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

1. ☒ Prosecution on the merits is (or remains) closed in this *ex parte* reexamination proceeding. This proceeding is subject to reopening at the initiative of the Office or upon petition. Cf. 37 CFR 1.313(a). A Certificate will be issued in view of

(a) ☒ Patent owner's communication(s) filed: 7/26/05 & 9/21/05.

(b) ☐ Patent owner's late response filed: _____.

(c) ☐ Patent owner's failure to file an appropriate response to the Office action mailed: _____.

(d) ☐ Patent owner's failure to timely file an Appeal Brief (37 CFR 41.31). _____.

(e) ☐ Other: _____.

Status of *Ex Parte* Reexamination:

(f) Change in the Specification: ☐ Yes ☒ No

(g) Change in the Drawing(s): ☐ Yes ☒ No

(h) Status of the Claim(s):

(1) Patent claim(s) confirmed: 8-14 and 25-32.

(2) Patent claim(s) amended (including dependent on amended claim(s)): 1-7, 15-24 and 33

(3) Patent claim(s) cancelled: NONE.

(4) Newly presented claim(s) patentable: 34-51.

(5) Newly presented cancelled claims: NONE.

2. ☒ Note the attached statement of reasons for patentability and/or confirmation. Any comments considered necessary by patent owner regarding reasons for patentability and/or confirmation must be submitted promptly to avoid processing delays. Such submission(s) should be labeled: "Comments On Statement of Reasons for Patentability and/or Confirmation."

3. ☐ Note attached NOTICE OF REFERENCES CITED (PTO-892).

4. ☐ Note attached LIST OF REFERENCES CITED (PTO-1449 or PTO/SB/08).

5. ☐ The drawing correction request filed on _____ is: ☐ approved ☐ disapproved.

6. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have

☐ been received.

☐ not been received.

☐ been filed in Application No. _____.

☐ been filed in reexamination Control No. _____.

☐ been received by the International Bureau in PCT Application No. _____.

* Certified copies not received: _____.

7. ☒ Note attached Examiner's Amendment.

8. ☒ Note attached Interview Summary (PTO-474).

9. ☐ Other: _____.

cc: Requester (if third party requester)

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PTOL-469 (Rev.9-04)

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PATENT AND TRADEMARK OFFICE

REEXAMINATION
REASONS FOR PATENTABILITY / CONFIRMATION

Reexamination Control No. 90/006,742

Attachment to Paper No. 20052609.

Art Unit 3661.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. The changes made by this examiner's amendment will be reflected in the reexamination certificate to issue in due course.

Mr. Christopher Wolfe was notified of the following amendments to correct minor informalities in designating insertions and deletions – now claims 50 – 52 have been renumbered as claims 49 – 51, respectively, since claim 49 was omitted when new claims were submitted by Patent owner - as per the attached interview summary (PTOL - 474)

IN THE CLAIMS

(See Attachment)

PATENTABLE SUBJECT MATTER

Claims 1 – 51 are patentable over the prior art of record. As argued by the Patent Owner, the art of record fail to teach an aircraft data transmission system and method comprising, among other limitations, at least one first sensor on the aircraft which gathers in-flight data and at least one second sensor configured to sense a landing of the aircraft, wherein communication is initiated via a cellular infrastructure in response to the second sensor sensing the landing of the aircraft.

Conferees:
Tan Nguyen
Thomas Black

TN
TB


(Examiner's Signature)

PTOL-476 (Rev. 03-98)

AMENDMENTS TO THE CLAIMS

(Attachment to PTOL – 476)

1. (twice amended): An aircraft data transmission system, the aircraft having a data acquisition unit, and the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least a first sensor on the aircraft, comprising:

a communications unit located in the aircraft and in communication with the data acquisition unit;

at least a second sensor configured to sense a landing of the aircraft;

a cellular infrastructure in communication with said communications unit after the aircraft has landed, wherein the cellular infrastructure communicates said flight data, and wherein the communication is initiated [automatically upon] when at least the second sensor senses the landing of the aircraft; [and]

a data reception unit in communication with said cellular infrastructure; and

wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft.

15. (twice amended): An aircraft data transmission system, the aircraft having a data acquisition unit, the aircraft including a data storage medium having stored thereon flight data gathered in-flight by at least one sensor on the aircraft, comprising:

sensing means for sensing a landing of the aircraft;

means for transmitting said flight data from the data acquisition unit, via a cellular infrastructure after the aircraft has landed, wherein transmission of the data is initiated [automatically upon] when the sensing means sense the landing of the aircraft; [and]

means for receiving said flight data from said cellular infrastructure; and
wherein said flight data includes time, airspeed, altitude, vertical acceleration, and
heading data relating to a flight of the aircraft.

18. (twice amended): A method of transmitting aircraft flight data from an
aircraft, comprising:

receiving flight data from a data acquisition unit;

receiving a signal indicating a landing of the aircraft from at least a first sensor;

transmitting said flight data via a cellular communications infrastructure after the
aircraft has landed, wherein the cellular communications infrastructure is accessed
[automatically upon] in response to the signal [landing of the aircraft]; [and]

receiving said transmitted flight data; and

wherein said flight data is gathered in-flight by at least a second sensor on the
aircraft, and includes time, airspeed, altitude, vertical acceleration, and heading data
relating to a flight of the aircraft.

19. (twice amended): A computer-implemented method of transmitting aircraft
flight data from an aircraft, comprising:

receiving flight data from a digital flight data acquisition unit, wherein said flight
data is gathered in-flight by at least a first sensor on the aircraft, and includes time,
airspeed, altitude, vertical acceleration, and heading data relating to a flight of the
aircraft;

receiving a signal indicating a landing of the aircraft from at least a second sensor;

processing said flight data to prepare said data for transmission; and
transmitting said processed data via a cellular infrastructure after the aircraft has
landed, wherein the cellular infrastructure is accessed in response to the signal
[automatically upon landing of the aircraft].

33. (twice amended): A computer readable medium having stored thereon
instructions which when executed by a processor, cause the processor to perform the
steps of:

receiving flight data from a digital flight data acquisition unit in an aircraft,
wherein said flight data is gathered in-flight by at least a first sensor on the aircraft, and
includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight
of the aircraft;

receiving a signal indicating a landing of the aircraft from at least a second sensor;

processing said flight data to prepare said data for transmission; and

transmitting said processed data via a cellular infrastructure when said aircraft has
landed, wherein the cellular infrastructure is accessed in response to the signal
[automatically upon landing of the aircraft].

34. (new): The system of claim 1, wherein the cellular infrastructure is a cellular
telephone infrastructure.

35. (new): The system of claim 34, wherein said data reception unit is in
communication with said cellular infrastructure via the Internet.

36. (new): The system of claim 34, wherein said data reception unit is in communication with said cellular infrastructure via the public switch telephone network.

37. (new): The system of claim 34, wherein said communications unit has at least one modem in communication with said cellular infrastructure and said data reception unit has at least one modem in communication with said cellular infrastructure.

38. (new): The system of claim 34, wherein said communications unit includes:
a processor;
a serial card in communication with said processor;
at least one cell channel in communication with said serial card; and
at least one antenna in communication with said cell channel.

39. (new): The system of claim 34, wherein said cellular infrastructure includes:
an antenna;
a transceiver subsystem in communication with said antenna; and
a controller in communication with said transceiver subsystem.

40. (new): The system of claim 34, wherein said data reception unit includes:
a router; and

a processor in communication with said router, said processor having a storage unit.

41. (new): The system of claim 15, wherein the cellular infrastructure is a cellular telephone infrastructure.

42. (new): The system of claim 41, wherein said means for transmitting data includes a processor.

43. (new): The system of claim 41, wherein said means for receiving data includes a processor.

44. (new): The method of claim 18, wherein the cellular communications infrastructure is a cellular telephone infrastructure.

45. (new): The method of claim 19, wherein the cellular infrastructure is a cellular telephone infrastructure.

46. (new): The method of claim 45 further comprising receiving said transmitted data at a flight operations center.


47. (new): The method of claim 46 further comprising receiving said transmitted data and transmitting said received data via the Internet before receiving said transmitted data at a flight operations center.

48. (new): The method of claim 46 further comprising receiving said transmitted data and transmitting said received data via the public-switched telephone network before receiving said transmitted data at a flight operations center.

49. (new): The method of claim 45 wherein processing said flight data includes:
compressing said flight data;
encrypting said flight data;
segmenting said flight data; and
constructing packets of data from said segmented flight data.

50. (new): The method of claim 45 wherein receiving said transmitted data includes:
acknowledging receipt of said transmitted data;
reassembling said received data;
decrypting said reassembled data;
uncompressing said decrypted data; and
storing said uncompressed data.

51. (new): The method of claim 33, wherein the cellular infrastructure is a cellular telephone infrastructure.

Reexamination 	Application/Control No.	Applicant(s)/Patent Under Reexamination
	90/008,742	6181990
	Certificate Date	Certificate Number


Requester	Correspondence Address:	<input type="checkbox"/> Patent Owner	<input checked="" type="checkbox"/> Third Party
Christopher F. Regan Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A. 255 S. Orange Avenue, Suite 1401 P.O. Box 3791 Orlando, FL 32802			

LITIGATION REVIEW <input checked="" type="checkbox"/>	(examiner initials)	B/405 (date)
	Case Name	Director Initials
NONE		RR


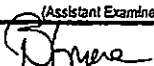
PENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
1. NONE	
2.	
3.	
4.	

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DOC. CODE RXFILJKT

Issue Classification	Application/Control No.	Applicant(s)/Patent under Reexamination
	90/006,742	6181990
	Examiner	Art Unit
	Yonel Beaulieu	3661


ISSUE CLASSIFICATION													
ORIGINAL					CROSS REFERENCE(S)								
CLASS		SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)							
701		14			701	35	16						
INTERNATIONAL CLASSIFICATION					455	431							
H	O	A	B	7/00	342	33							
G	O	B	F	13/00	-73	178T							
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XXXXXXXXXX (Assistant Examiner) (Date)		 Y. BEAULIEU (Primary Examiner) (Date)		Total Claims Allowed: 51	
 (Legal Instruments Examiner) (Date)				O.G. Print Claim(s) 1	
				O.G. Print Fig. 2	

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Part of Paper No. 20052609


Index of Claims 		Application/Control No. 90/006,742 Examiner Yonel Beaulieu		Applicant(s)/Patent under Reexamination 6181990 Art Unit 3661	
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✓	Rejected	—	(Through numeral) Cancelled	N	Non-Elected	A	Appeal
+	Allowed	+	Restricted	I	Interference	O	Objected

Claim		Date	
Final	Original	Final	Original
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3	3	53	53
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50	50	100	100

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Search Notes		Application/Control No.	Applicant(s)/Patent under Reexamination	
		90/006,742	6181990	
		Examiner	Art Unit	
		Yonel Beaulieu	3661	

SEARCHED			
Class	Subclass	Date	Examiner
701	3	8/15/2005	YB
	14		
	16		
340	945	8/15/2005	YB
	947		
	948		
	951		
	960		
73	178T	9/25/2005	YB
342	33	9/25/2005	YB

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
WEST	8/15/2005	YB
Consultation with SPRE Shop	8/15/2005	YB
	9/21/2005	YB
	9/26/2005	YB

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner

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STIC Search Report

EIC 3600

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To: Yonel Bealieu
Location: KNX 4C03
Art Unit : 3661
Monday, October 03, 2005

Case Serial Number: 09/126156

From: Karen Lehman
Location: EIC 3600 KNX 4A68, 4B58
Phone : 571-272-3496
karen.lehman@uspto.gov

Search Notes

Litigation search for 6181990



Current session 03/10/2005

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Query/Command : us6181990/pn

Query/Command : FRT SS 1 MAX 1 LEGAL

1 / 1 PLUSPAT - QUESTEL-ORBIT - image
Patent Number :
US6181990 B1 20010130 [US6181990]
Title :
(B1) Aircraft flight data acquisition and transmission system
Patent Assignee :
(B1) TELEDYNE TECHNOLOGIES INC (US)
Patent Assignee :
Teledyne Technologies, Inc., Los Angeles CA [US]
Inventor(s) :
(B1) STEVENS DAVID RAY (US); GRABOWSKY JOHN FRANCIS (US)
Application Mbr :
US12615698 19980730 [1998US-0126156]
Priority Details :
US12615698 19980730 [1998US-0126156]
Intl Patent Class :
(B1) G06F-013/00 G06F-017/40 H04B-007/00
EPO ECLA Class :
B64D-047/00
G07C-005/00T
G08G-005/06
H04L-012/28W
H04L-029/06
EPO ICO Class :
T04L-012/28W
US Patent Class :
ORIGINAL (O) : 701014000; CROSS-REFERENCE (X) : 455431000 701035000
cellular infrastructure.

1 / 1 LGST - EPO
Patent Number :
US6181990 B1 20010130 [US6181990]
Application Number :
US12615698 19980730 [1998US-0126156]
Action Taken :
20030930 US/RR-A [+]
REQUEST FOR REEXAMINATION FILED
EFFECTIVE DATE: 20030812
Update Code :
2003-42

Search statement 2

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1 of 1 DOCUMENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

6181990

[Link to Claims Section](#)

January 30, 2001

Aircraft flight data acquisition and transmission system

REEXAM-LITIGATE: August 12, 2003 - Reexamination requested by Harris Corporation, c/o Christopher F. Regan, Allen Dyer Doppelt Milbrath & Gilchrist, Reexamination No. 90/006,742 (O.G. September 30, 2003) Ex. Gp: 3661

APPL-NO: 126156 (09)

FILED-DATE: July 30, 1998

GRANTED-DATE: January 30, 2001

ASSIGNEE-AT-ISSUE: Teledyne Technologies, Inc., Los Angeles, California, 02

ASSIGNEE-AFTER-ISSUE: July 30, 1998 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS), TELEDYNE INDUSTRIES, INC. 1000 SIX PPG PLACE PITTSBURGH PENNSYLVANIA 15222, Reel and Frame Number: 09353/0790

August 1, 2002 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS), TELEDYNE TECHNOLOGIES INCORPORATED 12333 W. OLYMPIC BLVD. LOS ANGELES CALIFORNIA 90064, Reel and Frame Number: 13146/0358

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L12	L11 and L9	1	L12
L11	aircraft adj transmission adj system	10	L11
L10	L1 and L9	0	L10
L9	cellular adj infrastructure	568	L9
L8	L1 and L7	0	L8

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<u>L7</u>	airspeed and acceleration and heading	396	<u>L7</u>
<u>L6</u>	l1 and L5	0	<u>L6</u>
<u>L5</u>	communicat\$ adj2 landing	145	<u>L5</u>
<u>L4</u>	l1 and L3	0	<u>L4</u>
<u>L3</u>	automatic\$ adj2 communicat\$	8736	<u>L3</u>
<u>L2</u>	automatic adj2 communicat\$	2923	<u>L2</u>
<u>L1</u>	(5943399 6047165 5761625 5463656 5351194).pn.	10	<u>L1</u>

END OF SEARCH HISTORY

<http://westbrs:9000/bin/cgi-bin/PreSearch.pl>

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Refine Search

Search Results -

Terms	Documents

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

L29

[Refine Search](#)

[Recall Text](#)

[Clear](#)

[Interrupt](#)

Search History

DATE: Monday, August 15, 2005 [Printable Copy](#) [Create Case](#)

Set Name	Query	Hit Count	Set Name result set
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L29	I9 and I11 and L22	0	L29
L28	('6665778')[URPN]	1	L28
L27	(6189114 2003/0105948 6415383 5396619 6766474 6691195 6598173 6665778 6505144 6516427 6253163 6101617 6606716)!	23	L27
L26	[PN]		
L26	('6868507')[PN]	2	L26
L25	('6868507')[URPN]	0	L25
L24	('6847801' '6628995' '6665778' '6816728' '6757712' '6894611' '6915189')	1	L24
L23	[URPN]		
L23	('6047165')[URPN]	23	L23
L22	(6047165 5761625 5463656 5351194 5943399).pn.	10	L22
L21	I9 and L20	1	L21
L20	(6181990 6173159 6173159 6167238 6167238 6181990).pn.	6	L20

<http://westbrs:9000/bin/cgi-bin/PreSearch.pl>

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<u>L19</u>	(6173159 6167238 6181990)![PN]	6	<u>L19</u>
<u>L18</u>	('6876905')[PN]	2	<u>L18</u>
<u>L17</u>	(6173159 6167238 6181990)![PN]	6	<u>L17</u>
<u>L16</u>	('6876905')[PN]	2	<u>L16</u>
<u>L15</u>	(6173159 6167238 6181990)![PN]	6	<u>L15</u>
<u>L14</u>	('6876905')[PN]	2	<u>L14</u>
<u>L13</u>	('6876905')(URPN]	0	<u>L13</u>
<u>L12</u>	L11 and 19	1	<u>L12</u>
<u>L11</u>	aircraft adj transmission adj system	10	<u>L11</u>
<u>L10</u>	11 and L9	0	<u>L10</u>
<u>L9</u>	cellular adj infrastructure	568	<u>L9</u>
<u>L8</u>	11 and L7	0	<u>L8</u>
<u>L7</u>	airspeed and acceleration and heading	396	<u>L7</u>
<u>L6</u>	11 and L5	0	<u>L6</u>
<u>L5</u>	communicat\$ adj2 landing	145	<u>L5</u>
<u>L4</u>	11 and L3	0	<u>L4</u>
<u>L3</u>	automatic\$ adj2 communicat\$	8736	<u>L3</u>
<u>L2</u>	automatic adj2 communicat\$	2923	<u>L2</u>
<u>L1</u>	(5943399 6047165 5761625 5463656 5351194).pn.	10	<u>L1</u>

END OF SEARCH HISTORY

<http://westbrs:9000/bin/cgi-bin/PreSearch.pl>

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Refine Search

Search Results -

Terms	Documents
L1 and L7	0

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L8

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Monday, August 15, 2005 [Printable Copy](#) [Create Case](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR			
<u>L8</u>	l1 and L7	0	<u>L8</u>
<u>L7</u>	airspeed and acceleration and heading	396	<u>L7</u>
<u>L6</u>	l1 and L5	0	<u>L6</u>
<u>L5</u>	communicat\$ adj2 landing	145	<u>L5</u>
<u>L4</u>	l1 and L3	0	<u>L4</u>
<u>L3</u>	automatic\$ adj2 communicat\$	8736	<u>L3</u>
<u>L2</u>	automatic adj2 communicat\$	2923	<u>L2</u>
<u>L1</u>	(5943399 6047165 5761625 5463656 5351194).pn.	10	<u>L1</u>

END OF SEARCH HISTORY

<http://westbtrs:9000/bin/cgi-bin/PreSearch.pl>

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Refine Search

Search Results -

Terms	Documents
L3 and L4	1

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Search:

L5

Refine Search

Reset Text

Clear All

Interrupt

Search History

DATE: Monday, August 15, 2005 [Printable Copy](#) [Create Case](#)

Set Name Query
 side by side

Hit Count Set Name
 result set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L5</u>	L3 and L4	1	<u>L5</u>
<u>L4</u>	flight adj (data or information)	3442	<u>L4</u>
<u>L3</u>	l1 and L2	2	<u>L3</u>
<u>L2</u>	aircraft same landing	23151	<u>L2</u>
<u>L1</u>	(5351194 6047165 5943399 5463656 5761625).pn.	10	<u>L1</u>

END OF SEARCH HISTORY

<http://westbrs:9000/bin/cgi-bin/PreSearch.pl>

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